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Conduct of the Work**5-001 Resident Engineer's Pending File**

For guidance and information, the project engineer assembles and forwards to the resident engineer a set of letters, memoranda, and other data entitled, "resident engineer's pending file." This file must contain all pertinent information, comments, and advice that may be useful on the specific project to which the resident engineer is assigned. A detailed list of the information that should be included in the resident engineer's pending file is contained in Appendix GG, "Project Data Checklists," of the *Project Development Procedures Manual*. The file usually includes the following:

- Memoranda between programs, service centers, and districts, especially comments about preliminary reports and dummy special provisions.
- Special requirements that are enumerated in the freeway agreement and that may require action by the resident engineer. For instance, a special requirement may be notification of the date work begins on locally owned facilities.
- Memoranda about materials from the Office of Materials Engineering and Testing Services or the district materials unit.
- Copies of right-of-way agreements that require work to be done under the contract or that affect the project's construction.
- Copies of "Notice to Owner," which covers utilities and their completion status.
- Copies of the partially completed "Utility Service Request" form, which the resident engineer will use for the installation and coordination of utility services.
- Copies of correspondence giving the background of any unusual project features.
- All pertinent engineering data previously prepared in connection with the project. This data should include the project engineer's quantity calculations.
- Copies of the project report, preliminary report, and materials reports.
- A copy of the "materials information" as given to prospective bidders.
- A copy of the environmental document, including any permits, agreements, and commitments.
- A separate summary of all environmental commitments, as well as any special instructions or explanations for meeting permit and other legal requirements and commitments to other agencies.

The resident engineer must consult with the project engineer who forwarded the file if the file has any of the following problems:

- Information appears to conflict.
- Information appears to be missing.
- Additional information or explanations are required.

Conduct of the Work**5-001
Resident Engineer's
Pending File**

**5-002
Preconstruction
Conference With
Caltrans Personnel**

5-002 Preconstruction Conference With Caltrans Personnel

Before the start of construction, the resident engineer should review the job with the following people:

- Project manager
- Project engineer
- Right-of-way agent
- Hydraulics engineer
- Traffic engineer
- Materials engineer
- Maintenance superintendent
- Environmental planner
- Others who may have a direct interest in the project

At this preconstruction stage, such a review will significantly aid in explaining the reasons for certain design features such as the following:

- Right-of-way obligations
- Signing and traffic handling difficulties
- Materials sites
- Selected material
- Foundation treatment
- Potential slides
- Environmental commitments
- Potential drainage and maintenance problems, including erosion control and water pollution

The resident engineer must ensure implementation of environmental mitigation measures included in the project approval. To be fully informed of the environmental mitigation measures, commitments, or concerns on projects that include environmental commitments, the resident engineer must meet with the assigned environmental representative. At the same time, the resident engineer can reach agreement on both the assistance required from environmental specialists and also the tentative schedule and plan for environmental monitoring.

On projects involving structure construction personnel, preconstruction conferences are mandatory and should be held as soon as possible after bids are opened. The conferences should include structure and construction engineers, the resident engineer, and the structure representative. These personnel should reach agreement regarding the following items:

- Office facilities. The district must provide suitable office space and furniture for both district and structure field personnel. When the office facilities are trailers, the resident engineer and structure representative should both occupy the same trailer. When the office facilities are in a building, the engineer and the

representative should occupy adjacent rooms. This arrangement facilitates the assignment of the structure engineer as acting resident engineer during extended absences of the assigned resident engineer.

- Personnel for the total work. Conference participants must discuss the total work (both road work and structure work) and take full advantage of instances where people could be used interchangeably to reduce the number of people on the project. When the contractor's schedule is available, meeting participants must review the personnel required.
- Division of the work. The items should be categorized as roadwork and structure work. In some cases, the item may be divided by portions of items or by phases of the work. Before the start of work, the Office of Structure Construction requires from the structure representative a written report on this categorization of the work.

5-003 Preconstruction Conferences with the Contractor

Before the start of work, a conference must be held. Depending on the project's complexity, more than one conference may be desirable to limit the scope and number of individuals attending. The conferences must include the resident engineer and structure representative and may include principal assistants, the construction engineer, the district construction deputy director, the contractor's superintendent, and other key personnel. Subject to district policy, specialists such as the district labor compliance officer and the district safety coordinator, among others, may be included. Alternatively, the resident engineer may cover the respective responsibilities.

When environmental commitments have been made that affect or constrain the contractor's operations, appropriate environmental specialists should also attend the preconstruction conference with the contractor.

Meeting participants should discuss, among other items, the following:

- Work plans
- Equipment to be used
- Progress schedule
- Layout of job
- Labor compliance
- Equal employment opportunity
- Safety requirements
- Water pollution control requirements

This discussion affords both parties a common understanding of the proposed work and the problems and possible solutions that may be expected during the life of the contract.

The contractor should receive advance notice of the items that will be discussed. Among other documents, the contractor must bring a copy of the contractor's "Code of Safe Practices" and a water pollution control plan. The project file must contain a record of the conferences (or the reason for omitting a conference). Depending on the conference's complexity, the record can be a relatively complete set of minutes or a copy of the resident engineer's daily report.

5-003

Preconstruction Conferences with the Contractor

The police, fire department, public transportation agency, schools, and other affected agencies should receive any information developed from the meetings that will affect these agencies' operations.

In the list below, we present the guidelines for the preconstruction conference. However, bear in mind that these are reminders only. Items will or will not be included depending upon their applicability to a specific project. Also, consider any previous experience of a particular contractor with Caltrans projects. Further, the district construction office may have completed some of the items listed below, and therefore, these items need not be included at the conference.

- Introduce all participants, including in your introduction statements about each person's responsibilities for the project.
- Discuss superintendence as well as lines of authority for both contractors and Caltrans personnel. If you have not yet received it, request the written information required by Section 5-1.06, "Superintendence," of the *Standard Specifications*.
- Discuss the subcontracting requirements covered in Section 8-1.01, "Subcontracting," of the *Standard Specifications*.
- When required by the special provisions, discuss railroad insurance.
- If not yet received, request evidence of insurance, as required by Section 7-1.12, "Indemnification and Insurance," of the *Standard Specifications*.
- Discuss requirements related to labor compliance and equal employment opportunity. Advise the contractor of the deadlines for submitting payrolls and other required documents. Also advise the contractor of the contractual and administrative deductions that will be applied for noncompliance. Provide the necessary state-furnished forms and posters.
- Review the contract's safety requirements.
- Discuss the procedure for inspecting materials, particularly the early submittal of Form CEM-3101, "Notice of Materials to Be Used."
- When the contract requires, discuss the contractor's quality control plans.
- Discuss the requirements for submitting working drawings.
- Discuss the progress schedule (if the contract requires). If the contract requires a critical path method schedule, discuss the provisions for submitting, reviewing, updating, and revising it. See Section 3-803, "Progress Schedule," of this manual.
- Discuss weighing procedures, weight limitations, and the Caltrans policy on overloads. For more information, see Section 3-702, "Load Limitations," of this manual.
- Advise the contractor of administrative procedures and deadlines for payment for material on hand. Give the contractor the required Form CEM-5101, "Request for Payment for Materials on Hand."
- Discuss the requirements for submitting survey requests and any significant survey issues.
- Review the contract's provisions about water pollution control. Discuss the contractor's water pollution control plan.

- Remind the contractor to submit a program to control water pollution before beginning work (or waive the specified requirement if such an action is in order).
- Discuss the requirements for handling public traffic.
- Discuss any unusual project features.
- Remind the contractor of the contractual procedures to follow in the event of disagreements. Emphasize the necessity for timely written notices. Furnish Form CEM-6201, “Notice of Potential Claim.”
- Discuss the scheduling of utility work. For a discussion of utility preconstruction conferences, see Section 3-809, “Utility and Non-Highway Facilities,” of this manual.

5-004 Resident Engineer’s Daily Report

The following instructions are directed to the resident engineer who must do the following:

- For each contract day during the project’s life, make a daily report on Form CEM-4501, “Resident Engineer’s Daily Report/Assistant Resident Engineer’s Daily Report.”
- Include any information that may be pertinent even though no activity may have occurred. For example, such information could include support for determining working or nonworking days. Include the following in the daily report:
 1. Important discussions and agreements with the contractor. Record these on the day discussed. Give the names of specific persons to whom instructions were given or with whom agreements were made. If the contractor objects or comments, note these items, too. Actual quotations on significant discussion points can be useful. Through letters to the contractor, confirm important verbal instructions. (Also, see Section 5-403, “Response to Disputes,” of this manual.)
 2. A general statement about the type of work done. Include the controlling operation and any facts concerning the work’s progress.
 3. Weather conditions such as maximum and minimum temperatures and precipitation, among other items. Expand on exceptional weather conditions.
 4. Statements of any other important facts pertaining to the contract that are not specifically covered elsewhere in the contract records.
- Keep the report concise, yet include any important information. The report should not contain routine matters, such as quantities placed, that can be found in other records.
- Promptly send one copy of the daily report to the construction engineer, who will review the copy. After the review, the construction engineer may discard the copy or file it until the project’s completion, in accordance with district policy. Retain the original copy with the project records.

5-004

Resident Engineer’s Daily Report

5-005 Assistant Resident Engineer's Daily Report

5-005 Assistant Resident Engineer's Daily Report

To report the activity for a contract item, assistant resident engineers must submit a report for each contract day. Complete the report on Form CEM-4601, "Assistant Resident Engineer's Daily Report." Also, use this form for reporting extra work and for labor compliance. The form contains a narrative portion and a tabular portion.

The narrative portion of the assistant resident engineer's report should include statements about the contractor's operation and the activities of the individual preparing the report. The description of the contractor's operation should include the following:

- The location where the work was performed
- A brief description of the operation
- The quantities placed or the amount of work completed for the day
- Significant statements by the contractor

The statement of the assistant resident engineer's activities should be sufficient to demonstrate the performance of duties such as those outlined in Chapter 4, "Construction Details," of this manual. Record observations of contractor compliance or noncompliance, actions taken, statements made to the contractor, and approvals given.

Use the tabular portion of Form CEM-4601, to report the following:

- Extra work. For details, see Section 3-904D, "Extra Work Records," of this manual.
- Hours worked by labor and equipment. Provide sufficient detail to permit a review of the contractor's costs in a manner similar to a force account. Using the publication titled *Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)*, sufficiently identify equipment to enable the determination of applicable rental rates. Sufficiently identify the labor classification to enable determination of the appropriate wage rate. Also record the equipment's arrival and departure dates, as well as idle time for breakdowns or other reasons. This information can be used to make a possible adjustment of compensation due to an overrun or an underrun of quantities, a change in character, a protest, or a potential claim.
- The name of the contractor or subcontractor performing the work. When the report will be used to determine compliance with the contract's labor provisions, you must include the names or identification numbers of the contractor's personnel or report these separately. However, if the report is not for determining compliance with the contract's labor provisions, you only need to include in the tabular portion of the daily report the respective classifications of the work being performed and the number of hours worked on the date the report covers.

Distribute the assistant resident engineer's reports as follows:

- Retain the original of all reports in the project files in the field office.
- File reports covering extra work according to the procedure in Section 3-01, "Organization of Project Documents," of this manual.
- Distribute all other copies in accordance with district policy.

See Section 5-102, “Organization of Project Documents,” of this manual for details to consider when establishing a system for handling assistant resident engineer’s reports on a specific project.

5-006 Maintenance Reviews

Keep maintenance superintendents and supervisors informed of the start of work and job progress for all construction projects within the superintendents’ and supervisors’ maintenance areas. Before the start of construction, send a copy of Form CEM-0101, “Resident Engineer’s Report of Assignment,” to the maintenance region manager.

Provide the maintenance superintendents and supervisors an opportunity to review the contract with the resident engineer and to conduct a joint field review of the job site within the first two weeks of construction. The intent of this field review is to accomplish the following:

- Discuss the scope of the project.
- Coordinate contingency planning for traffic management.
- Discuss Caltrans’ maintenance responsibility as described in Section 3-704E, “Highway Maintenance,” of this manual.
- Discuss complex construction activities that could affect adjacent maintenance operations.
- Discuss features requiring special attention.
- Discuss manufacturers’ warranties and service instructions.
- Schedule regular reviews. When the contract work is 50 percent complete schedule at least one review, unless both construction and maintenance representatives agree the review is unnecessary.

When the project nears 90 percent completion, invite the maintenance superintendent, supervisor, or both for a final field review of the project. Ensure this review includes identifying all items necessary to comply with the construction National Pollutant Discharge Elimination System permit, Section A, “Storm Water Pollution Prevention Plan,” Subsection 7, “Stabilization.” A copy of the permit can be obtained from the State Water Resources Control Board via the following web address:

<http://www.swrcb.ca.gov/stormwtr/docs/finalconstpermit120602.pdf>

The resident engineer should work closely with the district maintenance personnel to make minor field adjustments to the project. The project manager must approve any amendments to the contract plans or specifications that significantly affect project cost, scope, or schedule.

When the work nears completion and just before contract acceptance, the resident engineer must notify the maintenance superintendent or supervisor to facilitate the transfer of maintenance and responsibility from the contractor to Caltrans forces.

5-006 Maintenance Reviews

**5-007 Federal
Highway
Administration
Involvement
in Contract
Administration**

**5-007 Federal Highway Administration Involvement
in Contract Administration**

Federally funded projects are classified as either nonexempt or exempt to indicate the Federal Highway Administration (FHWA) oversight requirements as stated in the stewardship agreement between FHWA and Caltrans. The stewardship agreement between FHWA and Caltrans can be found by visiting the budgets website:

<http://onramp/hq/budgets/library.htm>

Caltrans assigns project numbers to federally funded projects, and upon FHWA classification, adds a suffix “N” or “E” to the project number. Nonexempt projects (suffix “N”) are subject to full FHWA oversight requirements. Exempt projects (suffix “E”) are exempt from full FHWA oversight requirements.

Caltrans has been delegated oversight approval authority for all federally funded projects except those activities not covered by Title 23 of the United States Code (National Environmental Policy Act [NEPA], right-of-way, and civil rights among other activities). Consequently, there are several issues or events that require the resident engineer to seek FHWA approval or request FHWA involvement in a project.

Nonexempt (suffix “N”) projects are subject to full FHWA oversight requirements, so early and frequent communication with the FHWA engineer is essential to ensure full compliance with all federal requirements. Exempt (suffix “E”) projects are exempt from full FHWA oversight requirements. Resident engineers are not formally required to communicate with the FHWA engineer except for a few instances. Informal discussions for technical guidance are encouraged.

5-007A Events invoking Federal Highway Administration Involvement on Nonexempt projects

There are several events during the construction phase of an “N” project that may make FHWA involvement necessary. The resident engineer should meet with their FHWA engineer immediately following award of the contract to determine when FHWA involvement, if any, is necessary. The FHWA engineer is contacted sufficiently in advance of any project event deemed necessary to allow their participation. In all other cases, contact the FHWA engineer as soon as practical to ensure federal concurrence and participation.

Events invoking FHWA involvement may include:

- Preconstruction conferences.
- Partnering workshops.
- Value analysis studies.
- Notices of potential claim (NOPC):
 1. Submission and updates to the list of NOPCs to the NOPC log to FHWA engineer.
 2. Resident engineer’s determination of NOPC merit.
 3. Notice of potential claim resolution.
 4. Updates to items 1 through 3 above.

- Dispute review boards:
 1. Formation.
 2. Meeting invitations.
 3. Recommendation of dispute review board.
 4. Copies of Caltrans and contractor acceptance or rejection of DRB recommendations.
- Proposed final estimate: Submit a copy of the final acceptance checklist to FHWA engineer (see Example 5-0.1 at the end of this section) with a copy of the proposed final estimate.
- Claims:
 1. Exceptions to the proposed final estimate payments.
 2. FHWA agreement to amount of settlement.
- Director days.
- Boards of review:
 1. Meetings.
 2. Recommendations.
- District Director Determinations.
- Arbitration - Division of Construction coordinators will be responsible for keeping the FHWA area engineer informed of:
 1. Filings.
 2. Hearings.
 3. Settlements.
 4. Decisions.
- Other major milestones, events, or occurrences as deemed necessary by the resident engineer and the FHWA engineer.

Example 5-0.1 Final Acceptance Checklist for Federal-Aid “N” Projects

FHWA
FINAL ACCEPTANCE CHECKLIST
FOR FEDERAL-AID “N” PROJECTS

Project Information:

EA No. _____ Federal-aid No. _____
Project Description: _____
District/County/Route/KP: _____
Date Awarded: _____ Approval Date: _____
Time Started: _____ Work Started: _____
Contract Days: _____ Final No. Working Days: _____
Original Completion Date: _____ State Acceptance Date: _____
Liquidated Damages (No. of days and total \$ amount): _____

Submittals:

| | <u>Submitted?</u> | <u>Date:</u> |
|--|-------------------|--------------|
| Material Certification (CM 6-1.1) | Yes/No – N/A | _____ |
| Form FHWA-47M | Yes/No – N/A | _____ |
| Proposed Final Estimate | Yes/No – N/A | _____ |
| Last Statement of Working Days | Yes/No – N/A | _____ |
| Contractor’s Written Statement Of Claims (Submitted Separately) | Yes/No – N/A | _____ |
| List of contract change orders (Approved and Pending) (Participating/Non-Participating) | Yes/No – N/A | _____ |
| List of Time Extensions (FHWA Approved/Not Approved) | Yes/No – N/A | _____ |
| Form CEM-2402 (F) Final Report Utilization of DBE | Yes/No – N/A | _____ |
| Mitigation Monitoring Reporting Record (If available, status of environmental commitments if not completed) | Yes/No – N/A | _____ |

Additional Information:

Labor Compliance Problems: _____

Any other changes: _____

(Original – Project File

cc – FHWA – with Proposed Final Estimate)



5-008 Solid Waste Disposal and Recycling Reporting

Contracts containing special provisions for solid waste disposal and recycling reports require the contractor to chronicle landfill disposal and material recycling activity performed through the duration of the contract. The contractor reports this information via the Division of Construction Form CEM-2025, "Solid Waste Disposal and Recycling Report."

The contractor submits the annual report to the resident engineer by the 15th day of January, and five days following contract acceptance. If no work was conducted during the reporting period, the report states no work was performed during that period.

Contract special provisions require that all reports be received from the contractor in good order before the contract can be finalized. Review all reports submitted by the contractor for accuracy. Compare the total volumes of materials taken to, and diverted from, landfills from the Solid Waste Disposal and Recycling Reports with the approximate volume of work requiring the removal of materials. Before approving each report, resolve any discrepancies in material type or volume with the contractor. Each report submitted by the contractor that is either delinquent or grossly inaccurate is subject to a deduction of \$10,000 (ten thousand dollars) for non-compliance.

Submit the approved Solid Waste Disposal and Recycling Reports directly to the district recycling coordinator and a copy to the statewide recycle coordinator in the Division of Design. District and statewide recycling coordinators contact information is available via the following Internet address:

<http://www.dot.ca.gov/hq/oppd/ab75/coordinators.htm>

5-008 Solid Waste Disposal and Recycling Reporting